

Notice of Allowability

Application No.

10/004,450

Examiner

Sujatha Sharma

Applicant(s)

CHEN, TONNY

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/05/2001.
2. ☒ The allowed claim(s) is/are 1-6.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Allowable Subject Matter

1. The following is an examiner's statement of reasons for allowance:

The present invention is directed to hands free device commonly shared by multiple communication devices comprising:

a microprocessor, one or more than one Input/output or I/O interfaces, a multiplexer control unit, one or more than one multiplexers, a voice processing unit, a speaker amplifying and control unit, a microphone amplifying circuit, a dialing unit, a charging and power supply unit and an artificial interface, working in combination with a speaker and a microphone; wherein

- said micro processor is used to coordinate the operation of an individual circuit of all units of said hand free device;
- said one or more than one I/O interfaces of communication devices is controlled by said micro processor to convert input signals from said communication devices of various types and brands into manageable signals for the use of rear terminals;
- said artificial interface enables a user to input operational settings;
- said one or more than one multiplexers have respectively at least one or more than one logic switch controlled by flagpole signals of said multiplexer control unit to judge that part or whole signals of said communication devices are able to be input or output via said logic switch;
- said multiplexer control unit is subject to the control of said microprocessor to control by means of flag poles the operation of said multiplexers;

Art Unit: 2684

- said voice processing unit subject to the control of said microprocessor is used to regulate the input and output of voice;
- said speaker amplifying and control unit under the control of said microprocessor receives and amplifies voice signals transmitted from said voice processing unit to control a speaker to broadcast the processed voice;
- said microphone amplifying circuit is used to amplify acoustic signals input from said microphone for the use of rear end.
- said charging and power supply unit subject to the control of the microprocessor supplies electrical power to said communication devices and charges batteries thereof;
- said dialing unit can cooperate with a matrix of press buttons, a voice controlled input device to permit a user to make direct dialing operation without use of original pressing buttons on said communication devices;

whereby a single hand free device can be simultaneously coupled to more than one communication devices.

The closest prior art Hutchinson [US 5,953,674] discloses a portable communication device and accessory system, which provides full duplex asynchronous communications between a portable phone and external accessory device. Hutchinson further discloses a microprocessor (210 in Fig. 2) that is used to coordinate the operation of an individual circuit of all units of said accessory device. Hutchinson further discloses a voice processing unit (217 in fig. 2) subject to the control of said microprocessor is used to regulate the input and output of voice; and speaker

Art Unit: 2684

amplifying and control unit (116 in fig. 2) under the control of said microprocessor receives that amplifies voice signals transmitted from said voice processing unit to control a speaker to broadcast the processed voice. Hutchinson further discloses a charging and power supply unit (218 in fig. 2) subject to the control of the microprocessor supplies electrical power to said communication devices and charges batteries thereof; and a dialing unit (230 in fig. 2) that can cooperate with a matrix of press buttons, a voice controlled input device to permit a user to make direct dialing operation without use of original pressing buttons on said communication devices.

However, Hutchinson fails to disclose the above underlined uniquely distinct features in his invention.

Therefore claim 1 and the dependent claims are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wilson [US 6,081,724]

Portable communication device and accessory system

Art Unit: 2684

Stern [US 6,266,542]	Accessory allowing hands-free operation of a cellular telephone
Chen [US 6,349,223]	Universal hand-free system for cellular phones in combination with vehicle's audio stereo system
Yong-In-Cho [GB 2 327 012 A]	Hands free apparatus with multiple microphones
Rizzi [EP 1119160 A2]	Universal hands-free kit for cellular phone
Priegnitz [DE 10212571A1]	Universal hands-free device for motor vehicle
Holoch [DE 19715596 A1]	Handsfree unit for connection to a mobile
Lee [WO 00/70779]	Combined-use assembly of mobile telephone and audio
Chen [US 6,411,823]	Replaceable signal cable making a sound controlled or externally dialed hand-free system universally compatible with all types of cell phones

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sujatha Sharma whose telephone number is 703-305-5298. The examiner can normally be reached on Mon-Fri 7.30am - 4.00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 703-308-7745. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2684

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sujatha Sharma
September 23, 2004



NICK CORSARO
PRIMARY EXAMINER